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PROCEEDINGS OF THE
ROYAL ENTOMOLOGICAL SOCIETY
OF LONDON
SERIES B. TAXONOMY

VOLUME 6. 1937.

KEYS TO SOME INDIAN GENERA OF CARABIDAE (COL.)
VII. THE GENUS *FERONIA*

By H. E. ANDREWES, F.R.E.S.

SOME explanation is first required of the use of the generic name *Feronia* Latreille (1817), which has not been in use since Tchitcherin abandoned it in 1899, and indeed it never came into general use, the author himself having discarded it a few years after he had proposed it (*teste* Dejean). In my paper on the generic names of British CARABIDAE (1935, *Ann. Mag. nat. Hist.* (10) **16** : 21) I suggested the use of the name *Platysma* Samouelle (1819), described some years earlier than *Pterostichus* Stephens (1828). It seemed to me that *Feronia* might reasonably be treated as an invalid genus, the line or two of description in the first paragraph covering half the CARABIDAE, while in the text following it a considerable number of groups are comprised, including such diverse elements as the Pterostichini, Chlaeniini, and Oodini. At a subsequent meeting of the Coleoptera Sub-Committee of the Committee on Generic Nomenclature it was pointed out :—(i) that a generic name validly proposed cannot be suppressed, (ii) that a description, though very slight, therefore cannot be ignored, and (iii) that, if the genus were merely set on one side, it would be open to any author in the future to select a type for it, even a species of *Chlaenius* or *Oodes*, with possibly deplorable results to nomenclature. As the question of finality seems to me such a very important one, I have accepted these conclusions, and here fix *Carabus cupreus* Linn. 1758 (= Fab. 1792) as the type. This seems to have been the species which the author had in mind as genotype, for although the names of a good many species are quoted in footnotes, this is the only one referred to by its latin name in the text, excepting only *Carabus indicus* Herbst, a species of *Diplocheila*, which is mentioned on the last page.

The law of priority not applying to group names, that of Pterostichini, at present in use, can very well stand, and the only changes entailed will be the substitution of (i) *Feronia* Latr. as generic name for *Platysma* Sam. or *Pterostichus* auctt., and (ii) *Feronia* s.s. for *Poecilus* (*Poecillus*) Sam. as a subgenus.

It is unnecessary here to deal with all the characters of this large and widely distributed genus, but a few features of the Indian species may appropriately be mentioned. The submentum has sometimes one, sometimes two setae on each side, the third joint of the antennae is carinate in one species only, the lateral margins of the prothorax are nearly always bisetose and the basal foveae are only rarely duplicated, the basal border of the elytra is never dentate at the shoulder, the scutellary striole is nearly always vestigial, dorsal pores are usually present but sometimes wanting, the microsculpture is generally isodiametric, but transverse in one or two of the smaller species, the metepisterna are nearly always short, the last ventral segment has one seta on each side in the ♂, two in the ♀, the basal joints of the meso- and metatarsi are nearly always outwardly sulcate, and the claw-joint is setulose beneath in nearly half the species.

It will be seen that eleven Indian species have already been described, references to which will be found in Csiki's and my own catalogues, and the descriptions of five new ones are added here. In the accompanying key I have followed the main lines of Ganglbauer's admirable table (1892, *Käf. Mitteleurop.* **1** : 263), but, as in the case of so many other genera, the Indian species do not fit well into the keys prepared for palaearctic ones.

Key to the Species.

1(6). Metepisterna at least a half longer than wide in front; scutellary striole moderately long, though sometimes faint.

2(3). Third joint of the antennae compressed, the upper margin subcarinate; submentum with a single seta on each side; basal foveae of the prothorax duplicated; claw joint of tarsi not setulose beneath. Length, 11–12·5 mm. Punjab . . . . . *campania* sp. n.

3(2). Third joint of the antennae not compressed; submentum with two setae on each side.

4(5). Basal foveae of the prothorax duplicated; elytra black, with two dorsal pores and a fine scutellary striole; claw joint of tarsi setulose beneath. Length, 18 mm. Sikkim . . . . . *styx* sp. n.

5(4). Basal foveae of the prothorax not duplicated; elytra green, without dorsal pores and with only a faint scutellary striole; claw joint of tarsi not setulose beneath. (Basal joints of meso- and metatarsi with a slight outer sulcus, not without sulcus, as stated in the original description.) Length, 14 mm. Jelep La . . . . . *jelepa* Andr.

6(1). Metepisterna not, or very little, longer than wide in front; scutellary striole short or vestigial.

7(14). Claw joint of tarsi setulose beneath.

8(13). Submentum with a single seta on each side; prothorax with two marginal setae on each side; elytra black, interval 7 with an umbilicate pore at apex.

9(10). Basal foveae of prothorax duplicated; elytra without dorsal pores; basal joints of meso- and metatarsi outwardly sulcate. Length, 15 mm. S.E. Tibet . . . . . *atrox* sp. n.

10(9). Basal foveae of prothorax not duplicated; elytra with at least one dorsal pore; basal joints of meso- and metatarsi not outwardly sulcate (but in *gagates* the metatarsi are wanting).

11(12). Prothorax with its sides sinuate behind, the hind angles right; elytra with interval 8 not carinate behind and with a single dorsal pore, the scutellary striole short but deep. Length, 14 mm. "Nepal" *indica* Hope.

12(11). Prothorax with its sides not sinuate behind, the hind angles obtuse; elytra with interval 8 carinate behind and with two dorsal pores, the scutellary striole vestigial. Length, 12·5 mm. "Nepal" *gagates* Hope.

13(8). Submentum with two setae on each side; prothorax with three marginal setae on each side, the basal foveae duplicated; elytra cupreous and green, interval 7 without umbilicate pore at apex, and with two dorsal pores. Length, 13 mm. S.E. Tibet . . . . . *poecilma* sp. n.

14(7). Claw joint of tarsi not setulose beneath; basal foveae of prothorax not duplicated.

15(24). Submentum with two setae on each side; elytral interval 8 carinate near apex; length at least 12 mm.

16(23). Elytra with two to four dorsal pores.

17(22). Elytra with a raised tenth interval on apical half between interval 9 and the border; colour of the elytra black, blue, violet, or purple.

18(21). Frontal furrows short, deep, diverging and widening behind; hind angles of prothorax nearly rectangular, the basal foveae deep, parallel, a third of the total length, nearly reaching base; underside more or less punctate.

19(20). Prothorax about a fourth wider than long, the border faintly crenulate and the sides slightly sinuate behind; elytra violet. Length, 14–16·5 mm. Sikkim . . . . . *harmandi* Tchitch.

20(19). Prothorax about a third wider than long, the border evidently crenulate and the sides distinctly sinuate behind; elytra black. Length, 17–18 mm. Sikkim . . . . . *dolens* Tchitch.

21(18). Frontal furrows deep, long, diverging and bifurcating behind; hind angles of prothorax obtuse and rounded, the basal foveae deep, diverging in front, barely a fourth of the total length, not nearly reaching base; underside impunctate; elytra blue black to deep purple. Length, 15–17 mm. Kumaon–Garhwal . . *championi* Andr.

22(17). Elytra without a tenth interval on the apical half between interval 9 and the border, their colour aeneous or cupreous, three or four dorsal pores present. Frontal furrows and basal foveae of prothorax short, deep, and nearly parallel; sides of prothorax not or barely sinuate behind, the hind angles obtuse. Length, 12·5–13 mm. Sikkim *nowitzkii* Tchitch.

23(16). Elytra without dorsal pores, colour black. Prothorax cordate, the hind angles right, the basal foveae deep and parallel. Length, 13–14 mm. Sikkim . . . . . *exocha* Andr.

24(15). Submentum with a single seta on each side; elytral interval 8 not carinate near apex; length less than 12 mm.

25(26). Antennal joint 3 nearly a half longer than 4; a scutellary striole present, though rather short and ill defined; microsculpture of the elytra isodiametric; upper surface metallic green or cupreous. Length, 11–12 mm. Tibet. S.W. China. Jelep La . . *aeneocuprea* Fairm.

26(25). Antennal joint 3 very little longer than 4; scutellary striole vestigial; microsculpture of the elytra formed by transverse meshes; upper surface black.

27(30). Prothorax with two marginal setae on each side, the basal area finely and vaguely punctate, chiefly in the foveae; microsculpture of the elytra formed by meshes about twice as wide as long.

28(29). Eyes rather flat; prothorax a third wider than head and a fifth wider than long; elytra with the first dorsal pore at about a fourth from base. Length, 6·5–7 mm. Bashahr . . . . . *levicula* Andr.

29(28). Eyes moderately prominent; prothorax a half wider than head and a third wider than long; elytra with the first dorsal pore close to base. Length, 8 mm. Kashmir . . . . . *lidara* sp. n.

30(27). Prothorax with the hind marginal seta wanting (though, as a pore is present, it is quite possible that the setae have disappeared owing to abrasion), the whole basal area finely but conspicuously punctate; microsculpture of the elytra formed by very wide meshes. Length, 7–7·5 mm. Kashmir . . . . . *sintana* Andr.

Feronia campania sp. n.

Length, 11–12·5 mm. Width, 3·6–4 mm.

Black, shiny: apex of palpi ferruginous.

Head small, convex, with short, shallow, frontal foveae, eyes large and fairly prominent, mentum with a wide bifid tooth, submentum raised, a seta on each side of it, with a pair of rounded pores between them, antennae extending a little beyond base of elytra, joint 3 compressed and subcarinate, surface minutely and sparsely punctate, especially in the

foveae. *Prothorax* convex, cordate, a half wider than head, not quite a third wider than long, base with its sides a little oblique, as wide as apex, widest point at two-fifths from apex, the front lateral pore at a third from apex, the hind one in the angle, sides finely bordered, well rounded, and sinuate quite close to the hind angles, which are sharp, and only slightly obtuse; median line moderately deep, transverse impressions evident, though shallow, basal foveae duplicated, the inner pair linear, converging slightly in front, the outer pair very short, close to the angles, surface smooth, some fine punctures across the base and in the marginal channels. *Elytra* rather flat, very slightly dilated behind, a little more than a fourth wider than prothorax, about two-thirds longer than wide, border forming an obtuse angle at shoulder and extending inwards to stria 1, an inner plica visible behind; striae moderately deep and conspicuously punctate, 6 and 7 not quite reaching base, scutellary striole long, placed between stria 1 and stria 2, marginal channel finely asperate-punctate, stria 8 joining it well before base, 7 with an umbilicate pore near apex; intervals slightly convex, 3 with three pores, at a fifth, two-thirds, and four-fifths respectively, surface smooth. Microsculpture of the elytra formed by isodiametric meshes; traces only on the head and prothorax. Underside more or less punctate, the venter very finely, proepisterna behind and middle of metasternum impunctate; metepisterna very long and narrow; last ventral segment with a single marginal seta on each side in the ♂, 2 setae in the ♀; basal joints of the meso- and metatarsi outwardly bisulcate and with a fine carina between the sulci, joint 5 glabrous beneath.

Punjab: Lyallpur, at light, 2 ex.; Lahore, Shahdara (*G. D. Bhasin*), 1 ex. in the Forest Research Institute, Dehra Dun. "India," 1 ex. (British Museum). The type is in the British Museum.

Feronia styx sp. n.

Length, 18 mm. Width, 6·5 mm.

Black, shiny: apex of palpi ferruginous.

Head convex, with short, fairly deep, frontal furrows, between which are a few vague rugae, eyes large and fairly prominent, genae short but evident, tooth of mentum bifid, submentum raised, with two setae on each side and a pair of shallow oval pores in the middle, antennae stout, hardly extending beyond base of elytra, joint 3 with its basal half compressed, surface smooth, but microscopically punctate. *Prothorax* convex, a half wider than head, about a fourth wider than long, widest at middle, base truncate, hardly wider than apex, sides bisetose, hardly perceptibly bordered, reflexed, more widely behind, gently and evenly rounded from apex to a point very near base, where the hind angles project on each side as a rectangular tooth; median line and hind transverse impression both moderately deep, basal foveae duplicated, the inner pair shallow and nearly parallel, the outer pair deeper, divergent in front and bounded on each side outwardly by a stout though blunt carina, surface a little uneven, the basal area, especially the foveae, and the marginal channel conspicuously rugose-punctate. *Elytra* convex, slightly dilated behind, about a fifth wider than prothorax, three-fifths longer than wide, border forming a sharp angle at shoulder and extending inwards to the scutellary striole, inner plica not visible behind; striae fairly deep, very finely and inconspicuously crenulate, scutellary striole long but shallow, between stria 1 and suture, an umbilicate pore at the base of 1 and another near the apex of 7; intervals moderately convex, 3 with two pores on the apical half, adjoining stria 2 (on the left elytron the front pore is missing), surface smooth. Microsculpture of the elytra isodiametric; on the prothorax the meshes are slightly transverse and inconspicuous; none on the head. Underside slightly punctate on the mesosternum, metepisterna, and sides of venter at base; metepisterna evidently longer than wide; last ventral segment ♀ with two marginal setae on each side; basal joints of the meso- and metatarsi subcarinate at base and outwardly sulcate, tarsal joint 5 setulose beneath.

Strikingly like the palaearctic *F. vulgaris* L., but larger and relatively wider, the inner prothoracic foveae are shallower, the outer ones equally deep, but both they and the carinae bounding them, instead of being parallel, diverge in front, and the basal area is much more strongly rugose-punctate; the elytra are similar but wider, the front pore on interval 3 placed further forward. There is no similar Indian species known at present.

SIKKIM, 1 ex. ♀, presented to me some years ago by Dr. G. Hauser of Erlangen.

Feronia atrox sp. n.

Length, 15 mm. Width, 5·4 mm.

Black, elytra rather dull (♀): palpi ferruginous.

Head convex, with short, deep, frontal furrows, diverging strongly behind, neck slightly constricted, eyes small, prominent, genae short but evident, mentum with a slightly emarginate tooth, a small projecting tooth at the apex of each epilobe, submentum raised, a seta at each extremity, two pores at middle, a longitudinal sulcus between the gular sutures, upper surface of mandibles obliquely striate, antennae stout, hardly extending beyond base of elytra, joint 3 compressed at base, surface smooth and impunctate. *Prothorax* convex, quite two-thirds wider than head, about a fifth wider than long, widest at middle, base emarginate at middle, its sides a little oblique, wider than apex, sides with the border widening a little behind, strongly rounded, with a very faint sinuation just before base, a seta at two-fifths from apex and another just within the angle behind, hind angles obtuse and a little rounded; median line deep but not reaching extremities, transverse impressions obsolete, basal foveae duplicated, inner pair long, deepest in front, converging very slightly forwards, outer pair foveolate, close to the angles, bounded outwardly by a raised area, surface smooth and impunctate. *Elytra* convex, a little dilated behind and widest behind middle, quite a fourth wider than prothorax, nearly a half longer than wide, border forming a very obtuse angle at shoulder and extending inwards to stria 1, a deep emargination on each side behind, though no inner plica is visible; striae deep, hardly perceptibly crenulate, scutellary stria short but fairly deep, between stria 1 and stria 2, an umbilicate pore at the base of 2 and another near the apex of 7; intervals convex, narrowing gradually from within outwards, no dorsal pores, surface smooth. Microsculpture of the head and elytra isodiametric; on the prothorax the meshes are slightly transverse and very faint. Prosternum deeply longitudinally sulcate; front of mesosternum and metepisterna punctate, the latter as long as wide; venter depressed at sides, apical segment with a fine transverse sulcus just after middle, behind which the surface is depressed and finely rugose, with two setae on each side (♀) a little removed from margin; basal joints of meso- and metatarsi outwardly sulcate, joint 5 setulose beneath.

S.E. TIBET: Zayul, Mudung, 7500 feet (*F. Kingdon Ward* and *R. J. H. Kaulback*), 1 ex. ♀ in the British Museum. The specimen is somewhat broken, but I have described it in order to make the key as complete as possible.

The absence of dorsal pores on the elytra points towards the genus *Abax*, to which, however, the species does not appear to be otherwise related.

Feronia poecilma sp. n.

Length, 13 mm. Width, 5 mm.

Underside black, with some metallic reflections: upper surface of head and prothorax bright metallic green; elytra with intervals 1, 3, 5, 7, and 8 cupreous and shiny, 2, 4, 6, 9, and the marginal channel green, shagreened, and dull; middle of tibiae reddish.

Head convex, not contracted behind, neck tumid, slightly constricted behind the eyes, which are rather small and only moderately prominent, frontal foveae moderately deep,

almost linear, diverging behind, vertex with a few longitudinal striae, tooth of mentum rounded, only slightly emarginate, submentum with two setae on each side. *Prothorax* convex, cordate, a half wider than head and about a third wider than long, base a little emarginate, unbordered, wider than apex, sides rather narrowly bordered, gently rounded in front, very faintly sinuate before base, one seta behind and two in front, all in the marginal channel, hind angles slightly obtuse, but sharp; median line fairly deep, especially in front and behind, though barely reaching margins, transverse impressions obsolete, basal foveae deep, linear, nearly parallel, duplicated, the outer one bounded externally by a very conspicuous carina, surface a little uneven, a few longitudinal striae between the inner foveae. *Elytra* convex, ovate, about a third wider than prothorax, less than a half longer than wide, basal border obtusely angulate at shoulder, not quite reaching scutellum, widest point just behind middle, no inner plica visible behind; striae moderately impressed, vaguely crenulate, scutellary striole very slight; cupreous intervals convex, a little wider than the others, especially 3, but 8 is narrow and separated by only a fine stria from 7, green intervals flat, 3 with two pores, at a sixth and two-thirds, adjoining respectively stria 3 and stria 2. Microsculpture of the elytra isodiametric, very conspicuous on the green intervals, much less so on the raised cupreous intervals, practically none on the head or prothorax. Underside impunctate, prosternal process unbordered and glabrous, metepisterna hardly longer than wide. Last ventral segment (♀) with two marginal setae on each side. Metafemora unisetose on the hind margin; metatarsi not sulcate; tarsal joint 5 with numerous setae beneath.

S.E. Tibet: Tsangpo Valley, Nyima La, 15,000 feet, 22.vi.1924 (*F. Kingdon Ward*), 1 ex. ♀ in the British Museum. In this specimen only the two basal joints of the antennae remain, but it is otherwise in good condition.

Feronia lidara sp. n.

Length, 8 mm. Width, 2·75 mm.

Black, shiny: palpi, antennae, femora (to some extent), tibiae, and tarsi ferruginous.

Head convex, frontal furrows very short, but wide and deep, eyes moderately prominent, genae as long as eyes, mentum with a wide, emarginate tooth, a pair of setae behind it, and a deep fovea on each side, submentum with a seta on each side, antennae extending a little beyond base of elytra, surface smooth and impunctate. *Prothorax* convex, about a half wider than head and a fifth wider than long, widest at a little before middle, base truncate, as wide as apex, sides bisetose, with a narrow, reflexed border, moderately rounded, gently sinuate quite close to base, hind angles sharply rectangular; median line fine, crenulate, transverse impressions slight, basal foveae single, rather short but deep, diverging a little in front, surface smooth, basal area with some fine punctures, confined almost entirely to the foveae. *Elytra* convex, oval, only a little wider than prothorax, about three-fourths longer than wide, border hardly forming an angle at shoulder, extending inwards to stria 1, no inner plica visible behind; striae moderately impressed, shallower at sides, finely and not very clearly punctate, scutellary striole very short, 7 with a pore near apex; intervals slightly convex, 3 with three pores near base, at a half, and at four-fifths respectively, surface smooth. Microsculpture of the elytra formed by meshes on average twice as wide as long; on the prothorax the meshes are very wide and faint, while on the head they are also faint, but isodiametric. Sides of the body beneath moderately punctate, the metepisterna hardly longer than wide, last ventral segment (♀) with two setae on each side; basal joints of meso- and metatarsi with a fine external sulcus, joint 5 without setae beneath.

Kashmir: Lidar Valley, Tanin, 9000 feet (*B. M. Bhatia*), 1 ex. ♀, formerly in the collection of the Forest Research Inst., Dehra Dun, now in the British Museum.

ON A REMARKABLY COLOURED *PANESTHIA* (BLATTIDAE) FROM SUMBA ISLAND

By R. Hanitsch, Ph.D. (Jena), Hon. M.A. (Oxon).
(*Hope Department of Entomology, Oxford University Museum.*)

Communicated by Prof. G. D. Hale Carpenter, F.R.E.S.

The sub-family Panesthinae (Blattidae), with its two principal genera *Salganea* Stål and *Panesthia* Serville, is restricted to the Oriental and Australian regions. The known species of *Salganea* are all black in colour, whilst in several species of *Panesthia* shades of brown and orange are found, in addition, on the body or on the tegmina. The full-grown forms of *P. javanica* Serville, by far the most common species of the genus, are of a more or less uniform black or dark chestnut colour, but in the larval (apterous) stages mesonotum and metanotum are each marked with a pair of orange spots. In *P. regalis* Walker, from Assam, only the mesonotum is thus marked.

The tegmina of the various species of *Panesthia* may be fully developed or much abbreviated. Amongst the former there occur several strikingly bicolorous species. In *P. flavipennis* Wood-Mason, from the Naga Hills, Assam, the tegmina are orange, with a large black blotch in the distal half. *P. transversa* Burmeister (= *P. mandarinea* Saussure),* from the Malay region, has the tegmina in alternating transverse bands black, pale orange, black and pale orange again. In *P. regalis* Walker, from Silhet, Assam, the proximal two-fifths of the tegmina are orange, the remainder black. *P. plagiata* Walker, from Ceylon, has the tegmina black, with a transverse orange bar near the centre. *P. modiglianii* Hanitsch, from Siboga, Sumatra, resembles the preceding species, but whilst in *plagiata* that bar is of a more or less uniform width, it is distinctly triangular in shape in *modiglianii*.

Of the species of *Panesthia* with abbreviated tegmina only unicolorous species have so far been recorded. The first known bicolorous species, from Sumba, Malay Archipelago, has been sent to me by Dr. Dammerman, Director of the Zoological Museum in Buitenzorg. Its much reduced, but bright yellow tegmina are in startling contrast to the intensively black shining body. This new species may be described as follows :—

Panesthia luteo-alata sp. n.

♂. Head slightly exposed between the cornua of the pronotum; shining black, clypeus orange-testaceous, mouth-parts black (antennae missing). Pronotum shining black, anterior margin with two blunt cornua; disk anteriorly depressed, the depression behind and at the sides enclosed by a ridge-like swelling, with two blunt tubercles behind. Mesonotum, metanotum and abdomen shining black, finely punctured in front, coarsely so behind. Sides of seventh tergite entire, posteriorly drawn out into a short spine. Supra-anal plate on its posterior margin with six faint undulations. Cerci bulbous, shining black. Tegmina much abbreviated, barely reaching to the posterior margin of the metanotum, separated from each

* The synonymy of *P. transversa* Burm. and *P. mandarinea* Sss. is discussed in my paper 1932, *Ann. Mus. Stor. nat. Genova*, **56** : 86–87.

other by nearly one-half of the width of the mesonotum; oval in outline; ochre yellow,* very narrowly margined with olive-brown. Wings absent. Legs shining black; right anterior femur with three spines, left with two.

♂. Total length 37 mm., pronotum, length 8 mm., width 14 mm.; tegmina, length 8 mm., width 6 mm.

1 ♂ Kananggar, E. Sumba, 700 m. *Dammerman*, May 1925.

Its nearest ally seems to be *P. penrissensis* Han., from Mt. Penrissen, Sarawak (1933, *J. F.M.S. Mus.* **17** : 335, fig. 24). In that species, however, the tegmina are somewhat larger, partly overlapping each other, and are castaneous in colour.

* According to the colour chart in E. Séguy's *Code Universel des Couleurs*, Paris, 1936; and corresponding to " antimony yellow " in R. Ridgway's *Color Standards*, Washington, 1912.

A NEW SPECIES OF *DIHAMMUS* FROM INDIA (COL. CERAMBYCIDAE).

By J. C. M. Gardner, F.R.E.S.

Dihammus inaequalis sp. n.

♂. Dark brown, with dense, very short, uniform grey-brown pubescence; a similar pubescence is rather thinner on legs and ventral surface. Antennae with first two segments with greyish pubescence; following segments grey on basal half, brown distally.

Head with front slightly higher than wide, very slightly widened ventrally and with very distinct scattered punctures; similar punctures are present dorsally and there are a few behind lower lobes of eyes; rather deeply concave between the antennal tubercles which are abruptly prominent on the inner side. Lower lobe of eye higher than wide and separated from base of mandible by about half its height. Antennae rather more than twice as long as body, the scape rather short and thick, swollen distally (not gradually thickened from base to apex) with the apical cicatrice not much wider than long and with the marginal carina more than half complete; third and following segments slender, very weakly, if at all, thickened at their apices. Pronotum transverse, the lateral tubercles very slightly upturned; of the two apical transverse grooves the first is fine and distinct but the second is very vague and shallow; similarly of the two basal grooves, only the one nearer the base is sharply defined, the other very vague; the disk with numerous distinct punctures which extend to very near the apical margin; there are three vague swellings, two anterior, one posterior. Scutellum with dense yellowish-grey pubescence but triangularly glabrous at middle. Elytra slightly narrowed towards apex, rather closely covered, from base to apex, with rather small but very distinct punctures; the surface irregular; apices separately rounded. Length 13–16 mm.

♀. Differs from male in having the antennae shorter, the elytra parallel-sided anteriorly.

Described from 71 specimens reared from *Macaranga denticulata* (Type), *Alnus nepalensis* and *Evodia fraxinifolia*, Darjeeling, Bengal (*J. C. M. Gardner*).

Type in British Museum.

The irregularity of the elytral surface in the new species might suggest incomplete development if seen in a single specimen; it is, however, constant in the whole series.

ON THE PSEPHENIDAE COLLECTED BY DR. FRITZ PLAUMANN IN BRAZIL (COLEOPTERA)

By H. E. Hinton, F.R.E.S.

(*Zoological Laboratory, Cambridge.*)

In the spring of 1935 I received from Dr. Plaumann a collection of Brazilian Dryopoidea for determination. This collection consists of nearly 30 species, represented by 529 specimens. This paper deals with the Psephenidae, of which there are two species represented by six specimens. All of these are males and have the first two segments of the front tarsi and the first segment of the middle tarsi distinctly dilated. From Mexico I have both sexes of an undescribed similar species in which it is clearly evident that the dilated tarsi are secondary sexual characters of the male. The Brazilian species appear congeneric to some typical North American males of *Psephenus*, in which genus I am placing them.

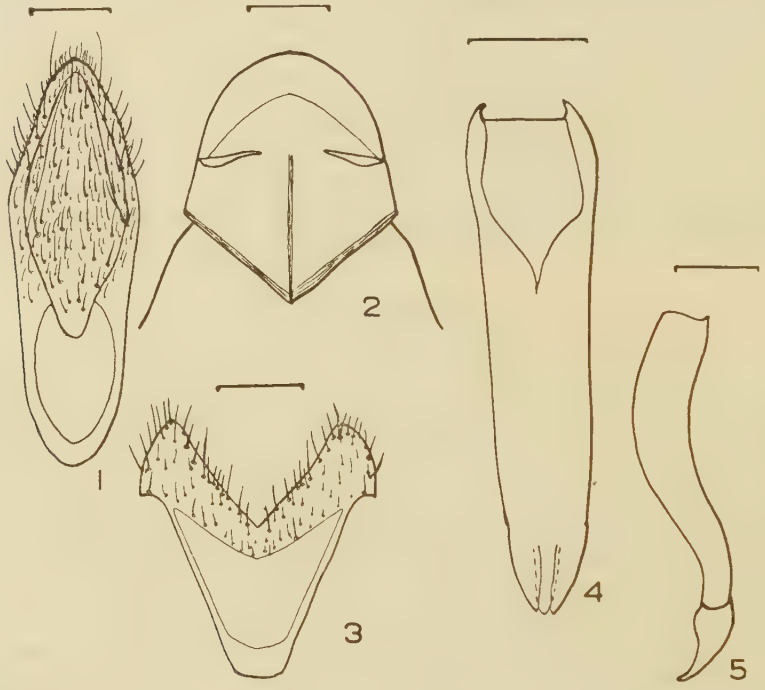
My best thanks are due to Dr. A. D. Imms and Dr. K. G. Blair for their help during the preparation of this paper. All text-figures were drawn with the aid of a camera lucida. Lines next to figures refer to a length of 0·20 mm.

Psephenus brazilianus sp. n.

(figs. 1–5 and 12.)

♂. Length, 3·7–4·0 mm.; breadth, 1·67 mm. Subparallel, moderately depressed. Dorsal surface clothed with fine, short (about 0·025 mm. long) recumbent to suberect, dense, brownish hairs and also with similar but longer (about 0·10 mm.), moderately dense hairs which are usually more erect; ventral surface with the short hairs shorter and sparser and the long hairs distinctly longer, sparser and more testaceous. Colour of cuticle brownish-black, moderately shining; maxillary palpi, coxae and femora fulvous. *Head* with a feeble, very broad depression occupying most of anterior portion. Antennae as figured (fig. 12). Maxillary palpi with segments 1–4 as follows: 0·05 mm., 0·32 mm., 0·20 mm., and 0·22 mm. long. Clypeus with the anterior margin broadly and rather deeply, arcuately emarginate. Labrum with the anterior margin nearly truncate. Surface with round to obovate punctures which are slightly finer than facets of eyes and on a basal belt extending up to posterior sixth of eyes very dense and often confluent; anteriorly to this belt the punctures are generally separated by once to twice their diameters; on clypeus and labrum these punctures are distinctly finer. *Prothorax* at broadest point near basal third broader than long (1·27 mm. : 0·75 mm.) and base broader than apex (1·20 mm. : 0·90 mm.). Apical margin as seen from above very feebly arcuate and scarcely noticeably sinuate on each side behind eye; apical angles not distinct, broadly rounded; sides moderately strongly arcuate, moderately converging towards apex, lateral margins not crenate; basal angles not prominent, nearly rectangular; base broadly and feebly sinuate on each side, rounded in front of scutellum. Pronotum evenly convex but with a broad, feeble depression in front of scutellum and with a similar but more feeble depression on each side near basal angle; surface with the punctures generally similar to those of middle portion of head. *Elytra* more than three times as long as prothorax (2·62 mm. : 0·75 mm.) and moderately feebly broadened posteriorly to broadest point at apical third which is broader than humeri (1·67 mm. : 1·40 mm.). Humeri feebly gibbous. Lateral margins not crenate. Apices broadly rounded. Surface without definitely marked striae; punctures often slightly denser but other-

wise similar to those of pronotum; near middle of disk with an occasional feeble, transverse ruga. Scutellum in the form of a trapezium, flat, and broader than long (0·17 mm. : 0·20 mm.). *Prosternal* process about twice as long as prosternum at middle, between front coxae less than 0·10 mm. broad and scarcely broader at apex. Mesosternum with a deep channel, the posterior portion of which is 0·12 mm. broad. Metasternum with the median longitudinal line on disk very fine and extending only on posterior three-fifths; posterior middle portion of disk feebly impressed; surface densely alutaceous but otherwise punctate as on pronotum. Abdominal sternites with the surface punctate as metasternum; fifth segment deeply and very broadly, arcuately emarginate at apex; sixth (fig. 3); seventh (fig. 1); ninth dorsal (fig. 2). Genitalia as figured (figs. 4–5). Front tarsus with the first two segments much broader than others and densely pubescent beneath; middle



Figs. 1–5.—*P. brazilianus* sp. n., ♂; 1. outer view of seventh abdominal sternite; 2. outer view of eighth abdominal tergite; 3. outer view of sixth abdominal sternite; 4. dorsal view of genitalia; 5. lateral view of genitalia.

tarsus with only the first segment broadened and pubescent beneath; middle tibia with numerous fine granules (granules often acute and similar to short spines) on inner surface.

♀. Unknown.

Type: ♂ in my collection. Brazil: Santa Catharina, Nova Teutonia, 1934 (*F. Plaumann*).

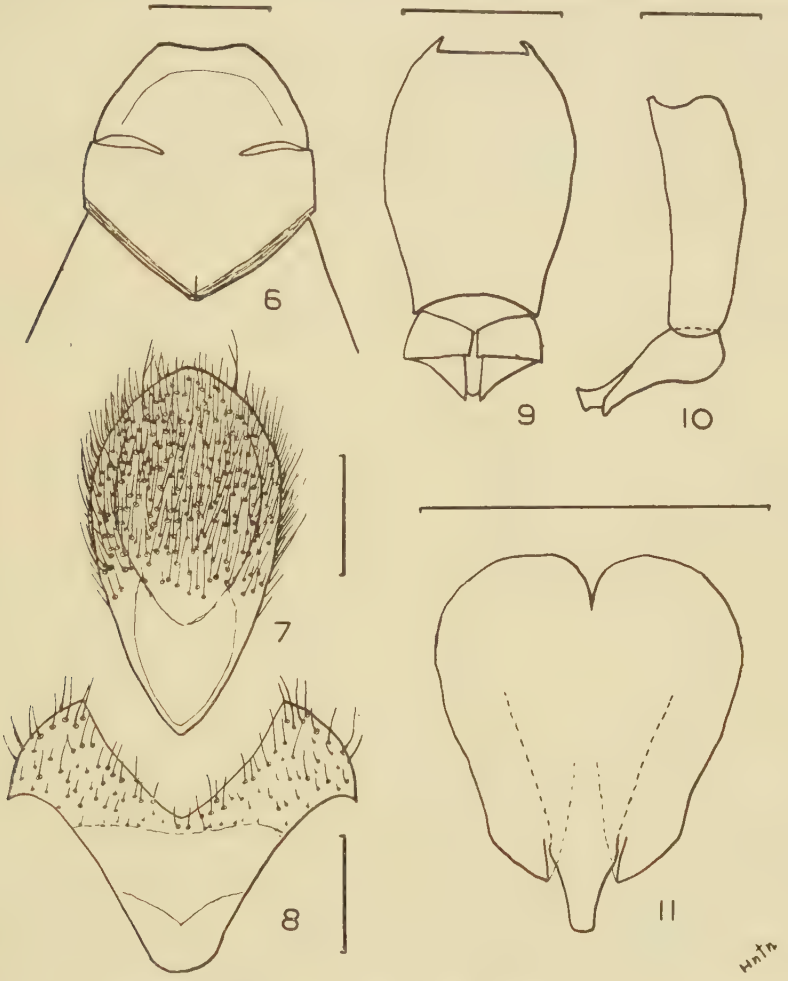
Paratypes: 1 in the collection of Dr. Plaumann, 1 in the collection of the British Museum (Natural History), and 2 in my collection, with same data as type.

Variations: Apart from the small variation in size noted above and a very slight variation in the size and density of the pronotal punctures, no variations worthy of mention have been noted. Close to no species known to me.

Psephenus plaumanni sp. n.

(figs. 6–11 and 13.)

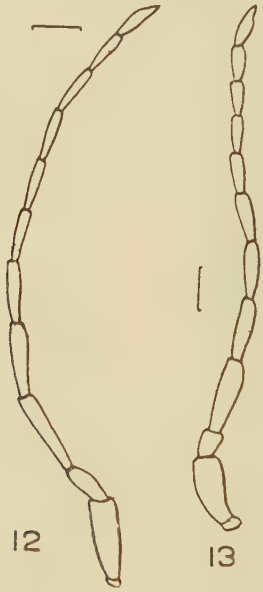
♂. Length, 3·7 mm.; breadth, 1·57 mm. Subparallel, moderately depressed. Dorsal surface clothed with fine, short (about 0·025 mm. long), recumbent to suberect, dense, brownish hairs and also with similar but longer (about 0·10 mm.), moderately dense hairs which are usually erect; ventral surface with the short hairs shorter and sparser and the



FIGS. 6–11.—*P. plaumanni* sp. n., ♂; 6. outer view of eighth abdominal tergite; 7. outer view of seventh abdominal sternite; 8. outer view of sixth abdominal sternite; 9. dorsal view of genitalia; 10. lateral view of genitalia; 11. extreme apical portion of genitalia turned so that it is dorsal.

long hairs distinctly longer, sparser and more testaceous. Cuticle brownish-black, moderately shining; maxillary palpi, coxae and femora rather fulvous. *Head* with a feeble, very broad depression occupying most of anterior portion. Antennae as figured (fig. 13). Maxillary palpi with segments 1–4, 0·03 mm., 0·28 mm., 0·17 mm., and 0·25 mm. long. Clypeus with the anterior margin broadly and rather deeply, arcuately emarginate. Labrum

with the anterior margin nearly truncate. Surface with round to obovate punctures which are slightly finer than facets of eyes and on a basal belt extending up to posterior sixth of eyes very dense and often confluent; anteriorly to this belt the punctures are generally separated by once to twice their diameters; on clypeus and labrum the punctures are distinctly finer. *Prothorax* at broadest point which is about basal fourth broader than long (1·27 mm. : 0·77 mm.) and base broader than apex (1·25 mm. : 0·90 mm.). Apical margin as seen from above very feebly arcuate and scarcely noticeably sinuate on each side behind eye ; apical angles not distinct, broadly rounded ; sides moderately strongly arcuate, moderately converging towards apex, lateral margins not crenate ; basal angles not prominent, feebly acute nearly rectangular ; base broadly and feebly sinuate on each side, rounded in front of scutellum. Pronotum evenly convex but with a broad, feeble depression in front of scutellum and with a similar but more feeble depression on each side near basal angle; surface punctate similarly to middle portion of head. Elytra about three times as long as prothorax (2·37 mm. : 0·77 mm.) and moderately feebly broadened posteriorly to broadest point at apical third which is broader than humeri (1·57 mm. : 1·37 mm.).



Figs. 12–13.—12. Antenna of ♂ *P. brazilianus* sp. n.; 13. antenna of ♂ *P. plaumanni* sp. n.

Humeri feebly gibbous. Lateral margins not crenate. Apices broadly rounded. Surface without definitely impressed striae; punctures similar to those of pronotum. Scutellum in the form of a trapezium, flat and broader than long (0·17 mm. : 0·15 mm.). *Prosternal process* about twice as long as prosternum at middle; between front coxae about 0·05 mm. broad and scarcely broader posteriorly. Mesosternum with a deep sulcus which is posteriorly about 0·03 mm. broad. Metasternum with the median longitudinal line very fine and extending only on posterior three-fourths; posterior middle portion of disk feebly depressed ; surface densely alutaceous but otherwise punctate as pronotum. Abdominal sternites punctate and alutaceous as metasternum; fifth sternite deeply and very broadly, arcuately emarginate at apex; sixth and seventh as figured (figs. 7–8); ninth dorsal as figured (fig. 6). Genitalia as figured (figs. 9–11). Front tarsus with the first two segments much broader than others and also more pubescent beneath; middle tarsus with only the first segment broader and more pubescent beneath.

♀. Unknown.

Type: A ♂ in my collection. BRAZIL: Santa Catharina, Nova Teutonia, 1934 (*F. Plaumann*).

This species is very close to *brazilianus*, but differs as follows: (1) in the structure of the male genitalia; (2) in the structure of the sixth and seventh sternites and the ninth tergite; (3) in having the first segment of the middle tarsus distinctly narrower than that of *brazilianus*; (4) in having no granules on the inner surface of the middle tibia; and (5) in the differently proportioned antennae.

NEW SCOLYTIDAE AND PLATYPODIDAE (COLEOPTERA)

By KARL E. SCHEDL.

Communicated by Sir GUY MARSHALL, F.R.E.S.

IN the following pages the results of the examination of various collections of the Imperial Institute of Entomology and the British Museum (Natural History) are represented.

Erineophilus guyanaensis sp. n.

♂. Rather pale reddish-brown, darker towards the anterior margin of the pronotum, 1·6 mm. long, 2·1 times as long as wide. The second species of the genus. *Front* densely covered with long reddish hairs which arise on the upper margin of a supposed shallow depression and directed downwards, reaching the epistomal margin. *Pronotum* wider than long (25 : 22), widest near the base, the latter transverse, postero-lateral angles narrowly rounded, sides acute, margined and conjointly broadly rounded to the apex, summit far behind the middle but hardly noticeable, gradually moderately convex from the apex to the base, on the anterior half with very fine, low and transverse asperities, posteriorly these becoming minute and appearing like fine transverse punctures. Scutellum small, subtriangular and shining. *Elytra* but feebly wider and 1·3 times as long as the pronotum, widest at the middle, sides feebly arcuate, gradually narrowed behind the middle to the broadly rounded apex; when viewed from the sides conjointly arcuate from the base to the apex, abdominal sternites ascending; base finely margined, brightly shining, with faint hardly noticeable rows of fine punctures, on the declivity the puncturation somewhat larger on the whole, the first and second striae distinctly punctured, the first impressed, the suture feebly elevated. The entire elytra glabrous.

♀. Front convex, rather coarsely and densely punctured, sparsely covered with short inconspicuous hairs; the pronotum more evenly convex from the apex to the base, the asperities less decreasing in size towards the latter.

Types in the British Museum and in my collection.

BRITISH GUIANA: N.W. District, iii.1934, *F. A. Squire*, attacking bark and destroying mahogany.

Xyleborus pithecolobius sp. n.

♀. Reddish-brown, 3·1 mm. long, 2·2 times as long as wide. A very distinct species but somewhat related to *X. eichhoffi* Schreiner and *X. tropicus* Hag. *Front* shining, densely coarsely and rugosely punctured, medially with a narrow carinae. *Pronotum*

much wider than long (14·5 : 11), base subtransverse, postero-lateral angles, feebly rounded, sides feebly arcuate, subparallel, apex transverse, antero-lateral angles broadly rounded, summit at the middle, anterior area steep, asperate, posteriorly extremely densely and coarsely punctured, punctation similar to that in some species of *Dryocoetes*. *Elytra* feebly narrower (14·5 : 14) and not quite twice as long as the pronotum, humeral angles moderately rounded, sides subparallel, feebly convergent on more than the basal half, broadly rounded behind; cylindrical, declivity convex and somewhat flattened and commencing behind the middle; disc striate-punctate, strial punctures moderate in size, closely placed, interspaces shining, with fairly regular rows of somewhat smaller punctures, irregularly placed and more numerous on the first two interstices; on the declivity the punctures larger, more crowded, more numerous so that the interspaces are entirely covered by them, 2 to 3 small granules on the third interstices, apical margin acute and finely granulate up to the seventh interstice, entire surface of pronotum and elytra with rather short, erect yellow pubescence.

Types in the British Museum and in my collection.

Gold Coast: Eastern Province, Actinota, iii.1934, *G. S. Cotterell*, ex *Pithecolobium saman*, chiefly dead wood.

Crossotarsus erichsoni Chap.

A male and a female (the latter only has been described) of *Platypus varius* Samps. determined by Sampson, which were kindly loaned to me from the British Museum, in connection with the description make it necessary to withdraw this name for this species, it must be known as *Crossotarsus erichsoni* Chap. (♀).

South Africa: Port S. John, Pondoland, 1923, *R. E. Turner*.

Platypus manipularis sp. n.

♂. Dark reddish-brown, 5·3 mm. long, 3·3 times as long as wide. A very distinct species of the *Platypi caudata*. *Front* very shallowly concave, densely shallowly punctured, finely reticulate. Antennal scape longer than wide. *Pronotum* subquadrate, shining, minutely reticulate, very finely and sparsely punctured, median sulcus long and fine. *Elytra* wider (17 : 15·5) and 2·0 times as long as the pronotum; sides parallel, declivity similar to that of *P. flavicornis* F., but the apical processes as in *P. alternans* Chap., and its allies; rather coarsely striate punctate, interstices subconvex, sparsely finely punctured, the interstices 1, 3, 5, 7, and 8 carinate towards the declivity, the first interstice rather low and short, the third, fifth and seventh more strongly developed and longer than the first, the eighth interstice feebly carinate and continued to the lateral process, the oblique portion of the declivity opaque, the process long and narrow; base of the third interstice strongly widened but sparsely punctured.

Types in the British Museum and in my collection.

Peru: Cachabé, i.1897, *Rosenberg*.

Crossotarsus rhodesianus sp. n.

♀. Reddish-brown, elytra pale yellowish on the sides, 3·4 mm. long, 3·5 times as long as wide. Allied to *C. fuscipilosus* m. from Kamerun, from which it can be distinguished by the colour, the shining, sparsely and rather coarsely punctured pronotum and the shining and distinctly punctured elytra. *Front* flat, coarsely punctured, with a plush of reddish hairs on the cephalad half, the hairs are curled up, the entire plush divided anteriorly; rounded towards the vertex, the latter with a shining, feebly raised median

carinae. *Pronotum* longer than wide (11 : 10), polished, femoral grooves large and deep, median sulcus short, but distinct, surface sparingly but rather coarsely punctured. *Elytra* as wide and 1·8 times as long as the pronotum, of similar shape as in *C. fuscipilosus* m., strongly shining, punctures arranged in regular rows, the shining interstices with a row of more remotely placed and finer punctures, the rounded apical margin with a small tubercle on each elytron near the suture, venter strongly convex, last sternite subperpendicular.

Types in the British Museum and in my collection.
RHODESIA : Salisbury, iv.1895, *Sir Guy Marshall.*

Crossotarsus togatus sp. n.

♀. Reddish-brown, antennae, legs and the greater part of the elytra and venter pale testaceous, 4·4 mm. long, 3·5 times as long as wide. The species is interesting since it was apparently collected in the same locality as *C. spatiosus* m., the female of which I have already described. As I shall show in another paper, a great number of characters used by Chapuis to establish his groups do not hold good since many intermediate forms are known now. *Front* broadly concave, subshining, minutely areolate, with a few coarse punctures near the margins, medially with a shining striga, antennal scape much wider than long, coarsely punctured and with erect fuscous hairs, angle separating the front and vertex distinct, narrowly rounded. *Pronotum* longer than wide (41 : 35), of a more silky appearance, with very fine scattered punctures, along the anterior margin with coarser ones, femoral grooves short and deep, median sulcus well developed, posteriorly widened, anteriorly continued by an impressed line for some distance. *Elytra* wider (13 : 12) and 1·8 times as long as the pronotum, sides subparallel, humeral and postero-lateral angles subequally rounded, apex subtransverse, punctured in distinct impressed rows, interstices convex, shining, subimpunctate, base of the third widened and with coarse transverse rugae, apex feebly convex above, perpendicular below, the two portions separated by a distinct angle, rugose, with scattered erect hairs; venter with the sternites 2–4 subequal in length when viewed from below, thence abruptly perpendicularly ascending to the elytra, the perpendicular face densely punctured and with short pubescence.

Types in the British Museum and in my collection.
RHODESIA : Salisbury, iv.1895, *Sir Guy Marshall.*

Crossotarsus nairobiensis sp. n.

♂. Dark reddish-brown, 4·1 mm. long, 3·3 times as long as wide. This species is a member of the *Crossotarsi alternantes* and belongs in the subdivision "antennal scape decidedly wider than long." It is easily recognised by the size and abdominal armature. *Front* shining along the epistomal margin, opaque above, flat, with an impressed median striga, punctures scattered and shallow, more densely placed on the sides, a few coarser and deeper punctures on the antero-lateral corners. Antennal scape much wider than long. *Pronotum* longer than wide (12·5 : 12), femoral grooves shallow, the sides parallel in front of the latter, median sulcus deep, surface very densely and rather coarsely punctured, especially in the anterior half. *Elytra* but little wider and 2·0 times as long as the pronotum, of the same general shape as in *C. falsificus* m., but the interstices narrower, more parallel, the first ones more widened and longer behind, the third also more strongly developed at the apex; second visible sternite polished, impunctate, very strongly raised, rim-like margined below, thus the perpendicular face appearing more deeply concave; the others as in *C. falsificus* m.

Types in the British Museum and in my collection.
BRITISH EAST AFRICA : Nairobi, 28.xii.1920, *A. F. J. Gedye.*

NOTE ON *HESPERIA LUCANUS* FABRICIUS (LEPIDOPTERA)

By G. A. Waterhouse, D.Sc., B.E., F.R.E.S.

Professor G. D. Hale Carpenter having kindly allowed me to examine Jones' Icones at the Hope Department of Entomology, Oxford University Museum, I am now in a position to show that this name should not be applied to any Australian Lycaenid.

Fabricius (1793, *Ent. Syst.*, **3** (1) : 322, n. 221) described *Hesp. lucanus*, citing " Jon. fig. pict. 6, tab. 36, fig. 3. Habitat in Indiis Dom. Drury."

Donovan (1800, *Ins. India*, pl. XLIII, fig. 4) figures the upperside only of this species, cites the reference to Fabricius and quotes the shorter Fabrician description and gives an English translation of it.

An examination of Jones' Icones shows a painting of both the upperside and underside on plate 38 in what is now volume V, with the superscription " Fabricis E. S. 221. Lucanus Drury." The underside shows that *lucanus* is certainly not Australian but very probably a species of Lipteninae from Africa. Mr. G. Talbot was with me when this examination was made and agrees with this conclusion.

The Australian species hitherto passing under the Fabrician name *lucanus* must now be known as *Lucia limbaria* Swainson (1833, *Zool. Illust.* (2) **3** : [29], pl. 135). It is curious to note that it was Swainson himself, when describing *L. limbaria*, who suggested that his species might be *H. lucanus* Fab. and so caused the confusion. Butler (1869, *Cat. Fabr. Lep. Brit. Mus.*, : 178) considered *H. lucanus* Fab. to be Australian and referred to a pair obtained in 1846 from Herr J. J. Becker. I have before me what is probably this pair; both bear a disc with 46–46 and the register shows that this collection was purchased from Becker. They are, however, " *Thecla* " *aurifer* Blanchard and not *L. limbaria* Swainson, and still less *H. lucanus* Fabr. Kirby (1871, *Syn. Cat. diurn. Lep.*, : 337) seems to have been the first to place *L. limbaria* Swainson as a synonym of *H. lucanus* Fabr.

There are still specimens of *Paralucia aurifer* Blanchard in the British Museum with the specific name *lucanus* on their labels.

Chrysophanus discifer Herr.-Schaeffer (1869, *Stettin. ent. Ztg.*, **30** : 72, pl. 4, fig. 21) is a synonym.